

IN THE CLAIMS

Please amend Claims 1, 3, 9, 14-15 and 20-27 as follows:

1. (Amended) A process for producing 2,6-dialkylnaphthalene from a feedstock, comprising the following steps:

I. separating said feedstock into naphthalene, monoalkylnaphthalene, and dialkylnaphthalene fractions;

II. separating and purifying 2,6-dialkylnaphthalene from said dialkylnaphthalene fraction of step I to produce 2,6-dialkylnaphthalene and a second dialkylnaphthalene fraction;

III. alkylating said monoalkylnaphthalene fraction of step I with an alkylating agent to produce dialkylnaphthalene and recycling the dialkylnaphthalene to step I;

IV. transalkylating said naphthalene fraction of step I and said second dialkylnaphthalene fraction produced in step II, to produce monoalkylnaphthalene, and isomers of dialkylnaphthalene; wherein said monoalkylnaphthalene fraction produced in step I is cracked before step III, or in step III, or after step III.

3. (Amended) The process of claim 2, further comprising cracking of said dialkylnaphthalene fraction of step I and said naphthalene fraction of step I before step IV, or in step IV, or after step IV.

9. (Amended) The process of claim 8, further comprising cracking of co-boiler of dialkylnaphthalene at said 2,6-lean-dialkylnaphthalene stream before isomerization, or with the isomerization, or after isomerization and before step I.

14. (Amended) The process of claim 10, wherein at least a part of the other components containing alkyl naphthalene having a higher boiling point than naphthalenes in the separation after the isomerization are dealkylated, then recycled to step I.

15. (Amended) The process of claim 1, wherein a part of said dialkynaphthalene fraction after 2,6-dialkynaphthalene is separated therefrom in step II are dealkylated, then recycled to step I.

20. (Amended) A process of preparing a polyethylenenaphthalate polymer or polybutylenenaphthalate polymer comprising;

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- A. oxidizing 2,6-dialkyl naphthalene to form 2,6-naphthalene-dicarboxylic acid; and
- B. condensing said 2,6-naphthalene-dicarboxylic acid with a diol selected from the group consisting of ethylene glycol and butanediol to form a polyethylenenaphthalate polymer or polybutylenenaphthalate polymer

wherein said 2,6-dialkyl naphthalene is produced by a process comprising the following steps:

- I. separating a feedstock into naphthalene, monoalkynaphthalene, and dialkyl naphthalene fractions;
- II. separating and purifying 2,6-dialkyl naphthalene from said dialkyl naphthalene fraction of step I to produce 2,6-dialkyl naphthalene and a second dialkyl naphthalene fraction;
- III. alkylating said monoalkyl naphthalene fraction of step I with an alkylating agent to produce dialkyl naphthalene;
- IV. transalkylating said naphthalene fraction of step I and said second dialkyl naphthalene fraction produced in step II, to produce monoalkyl naphthalene, and isomers of dialkyl naphthalene; wherein
said monoalkyl naphthalene fraction produced in step I is cracked before step III, or in step III, or after step III.

21. (Amended) A process for preparing a polyethylene naphthalate polymer or polybutylenenaphthalate polymer comprising;

A. oxidizing 2,6-dialkyl naphthalene to form 2,6-naphthalene-dicarboxylic acid; and

B. esterifying 2,6-naphthalene-dicarboxylic acid with methanol to form dimethyl-2,6-naphthalene-dicarboxylate; and

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C. condensing said dimethyl-2,6-naphthalene-dicarboxylate with diol selected from the group consisting of ethylene glycol and butanediol to form a polyethylenenaphthalate polymer or polybutylenenaphthalate polymer

wherein said 2,6-dialkyl naphthalene is produced by a process comprising the following steps:

- I. separating a feedstock into naphthalene, monoalkyl naphthalene, and dialkyl naphthalene fractions;
- II. separating and purifying 2,6-dialkyl naphthalene from said dialkyl naphthalene fraction of step I to produce 2,6-dialkyl naphthalene and a second dialkyl naphthalene fraction;
- III. alkylating said monoalkyl naphthalene fraction of step I with an alkylating agent to produce dialkyl naphthalene;

- IV. transalkylating said naphthalene fraction of step I and said second dialkyl naphthalene fraction produced in step II, to produce monoalkyl naphthalene, and isomers of dialkyl naphthalene; wherein

said monoalkyl naphthalene fraction produced in step I is cracked before step III, or in step III, or after step III.

22. (Amended) A process for producing 2,6-dialkylnaphthalene from a feedstock, comprising the following steps:

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- I. separating said feedstock into a fraction comprising naphthalene and monoalkylnaphthalene and a fraction comprising dialkylnaphthalene;
- II. separating and purifying 2,6-dialkylnaphthalene from said dialkylnaphthalene fraction of step I to produce 2,6-dialkylnaphthalene and a second dialkylnaphthalene fraction;
- III. dealkylating said naphthalene and monoalkylnaphthalene fraction of step I and said second dialkylnaphthalene fraction produced in step II;
- IV. separating a naphthalene and monoalkylnaphthalene fraction from said dealkylation product of step III;
- V. alkylating said naphthalene and monoalkylnaphthalene fraction of step IV; and
- VI. recycling a product from step V to step I.

23. (Amended) A process for producing 2,6-dialkylnaphthalene from a feedstock, comprising the following steps:

I. separating said feedstock into a fraction comprising naphthalene and monoalkylnaphthalene, a fraction comprising dialkylnaphthalene and a fraction lean in dialkylnaphthalene;

II. separating and purifying 2,6-dialkylnaphthalene from said dialkylnaphthalene fraction of step I to produce 2,6-dialkylnaphthalene and a second dialkylnaphthalene fraction;

IIa. isomerizing said fraction lean in dialkylnaphthalene;

IIb. separating the isomerization product of step IIa into a fraction comprising dialkylnaphthalene and a fraction lean in dialkylnaphthalene;

IIc. feeding said fraction comprising dialkylnaphthalene of step IIb to step II;

III. dealkylating said naphthalene and monoalkylnaphthalene fraction of step I, said second dialkylnaphthalene fraction produced in step II and a fraction lean in dialkylnaphthalene from step IIb;

IV. separating a naphthalene and monoalkylnaphthalene fraction from said dealkylation of step III;

V. alkylating said naphthalene and monoalkylnaphthalene fraction of step IV; and

VI. recycling a product from step V to step I.

24. (Amended) A process for producing 2,6-dialkylnaphthalene from a feedstock, comprising the following steps:

I. separating said feedstock into a fraction comprising naphthalene, a fraction comprising monoalkylnaphthalene, a fraction comprising dialkylnaphthalene and a fraction comprising remaining products;

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II. separating and purifying 2,6-dialkylnaphthalene from said dialkylnaphthalene fraction of step I to produce 2,6-dialkylnaphthalene and a second dialkylnaphthalene fraction;

IIa. dealkylating second dialkylnaphthalene fraction produced in step II and recycling the product of dealkylation to step I;

III. dealkylating said fraction comprising remaining products of step I and recycling a product of dealkylation to step I;

IV. alkylating said fractions comprising naphthalene and comprising monoalkylnaphthalene of step I.

25. (Amended) A process for producing 2,6-dialkylnaphthalene from a feedstock, comprising the following steps:

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- I. separating said feedstock into a fraction comprising naphthalene, a fraction comprising monoalkylnaphthalene and a fraction comprising dialkylnaphthalene;
- II. separating and purifying 2,6-dialkylnaphthalene from said dialkylnaphthalene fraction of step I to produce 2,6-dialkylnaphthalene and a second dialkylnaphthalene fraction;
- III. dealkylating said second dialkylnaphthalene fraction produced in step II;
- IIIa. recycling the product of step III to step I; and
- IV. alkylating said fractions comprising naphthalene and comprising monoalkylnaphthalene of step I.

26. (Amended) A process for producing 2,6-dialkylnaphthalene from a feedstock, comprising the following steps:

I. separating said feedstock into a fraction comprising naphthalene, a fraction comprising monoalkylnaphthalene, a fraction comprising dialkylnaphthalene and a fraction lean in dialkylnaphthalene;

II. separating and purifying 2,6-dialkylnaphthalene from said dialkylnaphthalene fraction of step I to produce 2,6-dialkylnaphthalene and a second dialkylnaphthalene fraction;

IIa. isomerizing said fraction lean in dialkylnaphthalene of step I;

IIb. separating the isomerization product of step IIa into a fraction comprising dialkylnaphthalene and a fraction lean in dialkylnaphthalene;

IIc. recycling a dialkylnaphthalene fraction of step IIb to step II;

III. dealkylating said second dialkylnaphthalene fraction produced in step II and a fraction lean in dialkylnaphthalene of step IIb;

IV. alkylating said fractions comprising naphthalene and comprising monoalkylnaphthalene of step I; and

V. recycling a product from step III to step I.

27. (Amended) A process for producing 2,6-dialkylnaphthalene from a feedstock, comprising the following steps:

I. separating said feedstock, in distillation towers, into a fraction comprising 2,6-dimethylnaphthalene, a fraction comprising 1,6-dimethylnaphthalene and a fraction comprising a remainder;

II. purifying 2,6-dialkylnaphthalene from said 2,6-dimethylnaphthalene fraction of step I to produce 2,6-dialkylnaphthalene and a second dialkylnaphthalene fraction;

IIa. isomerizing said 1,6-dimethylnaphthalene fraction of step I;

IIb. separating the isomerization product of step IIa into a fraction comprising 2,6-dimethylnaphthalene and a fraction comprising a remainder;

IIc. feeding said fraction comprising 2,6-dimethylnaphthalene of step IIb to step II;

III. dealkylating said fraction comprising a remainder of step I, said second dialkylnaphthalene fraction produced in step II, and a fraction comprising a remainder of step IIb;

IV. separating a naphthalene and methylnaphthalene fraction from said dealkylation of step III;

V. alkylating said naphthalene and methylnaphthalene fraction of step IV; and

VI. recycling a product from step V to step I.

IN THE ABSTRACT

Please replace the abstract with the attached abstract.